

Appl. No. : 10/568,792
Amdt. Dated: August 19, 2008
Reply to Office Action of April 24, 2008

REMARKS

Claims 1 – 13 were originally pending in the present application. Claims 14 and 15 have been added by this paper, leaving Claims 1 – 15 pending and at issue. Of the original claims, Claims 1 – 13 have been rejected on the grounds of non-statutory, obviousness-type, double patenting over Claims 1 – 23 of U.S. Patent No. 6,755,259 to Peltola et al (hereafter “Peltola”) in view of U.S. Patent No. 2,224,010 to Barber et al. (hereafter “Barber”). Claims 1 – 6 have also been rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,301,756 to Relyea et al. (hereafter “Relyea”). Claims 7 – 10 stand rejected under 35 U.S.C. 103(a) as unpatentable over Relyea in view of U.S. Patent No. 3,913,845 to Tsuji et al. (hereafter “Tsuji”). Claims 11, 12 and 13 also stand rejected under 103(a) as unpatentable over Relyea in view of Tsuji and further in view of at least one of U.S. Patent No. 2,246,797 to Geddes et al. (hereafter “Geddes”) and U.S. Patent No. 4,435,891 to Nicholson et al. (hereafter “Nicholson”).

Applicant respectfully traverses the rejection of all claims as stated above and requests reconsideration in view of the arguments present below.

Double Patenting Rejection

Claims 1 – 13 are rejected as an obvious combination of Peltola and Barber. Applicant disagrees with this rejection.

Nowhere in Peltola is it disclosed that a plurality of single jets expelled from orifices is directed so that they form a single uniform jet having a flat curtain-like shape. Peltola simply teaches to provide an outer end of a piercing tool with one or more nozzle orifice to achieve a spray.

Barber discloses a solution wherein the purpose is to penetrate a spearhead (10) together with a nozzle (12) into narrow compartments of a building structure, as is mentioned on page 1,

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lines 28 – 31. Since water jet is sprayed into a narrow space there is no need to form any jet having a flat curtain-like shape in order to make a “spray wall.” The bores in the nozzle (60, 62, 64, 66, 68, 70) disclosed in Barber are arranged so that water sprays are directed in perpendicular direction of the central axis of the nozzle. This is clearly shown in Figures 1 to 3. Therefore, independent water jets are formed on opposite sides of the nozzle, as is shown in Figure 5. There are no bores directing forwards whereby the independent jets on opposite sides of the nozzle cannot form a single uniform curtain-like jet.

Furthermore, as is shown in Figure 3 of Barber, there are several diverging bores in the nozzle (60, 62, 64, 66, 68, 70), meaning that three independent jets are formed on opposite sides of the nozzle. The bores of the Barber nozzle are diverged in order to distribute water spray simultaneously all portions of a narrow compartment (see page 2, lines 31 – 36). Where a single flat-shaped jet were to be formed in Barber, all portions inside a compartment could not be sprayed. Further, since the purpose is to operate with narrow compartments, there is no motivation to arrange any nozzles in a forward direction. Thus, it would be against the teaching of Barber to modify the nozzle so that one single flat curtain-like jet could be formed.

Accordingly, the combination of Peltola and Barber would not lead one to the present invention as set forth in the pending claims. Reconsideration and withdrawal of this rejection is respectfully requested.

Section 102(b) Rejections

In order for a reference to act as a §102 bar to patentability, the reference must teach each and every element of the claimed invention. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771 (Fed. Cir. 1983). Without the required teaching of “each and every element” as set forth in the claims, it is improper for the Examiner to continue such rejections under §102(b).

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Applicant contends that Relyea fails to disclose directing a plurality of single jets so that they form a single uniform jet having a flat curtain-like shape. Rather, with reference to Figures 15, 16, 17 and 18, it is clearly shown that a piercing nozzle (196) has a plurality of orifices (200) which are not arranged to pass via the same imaginary plane, but instead the orifices are directed in several directions. The nozzle of Relyea can in no way form a single flat jet.

Further, with reference to column 6, lines 59 – 61, it is mentioned that the nozzle is intended to deluge the interior of an aircraft when positioned inside. Since the purpose is to deluge the interior, it would be illogical to form a single flat jet.

Regarding Claim 2 of the present application, column 9, lines 19 – 23 and 33 – 36 are referenced. However, in these cited sections of Relyea it is not discussed about a nozzle (196) arranged in a piercing tool but instead a conventional water spray nozzle (56) is discussed. Figures 6 – 9 illustrate nozzle (56). The conventional nozzle (56) is definitely not a piercing nozzle. On the other hand, there is no teaching in Relyea that the conventional nozzle could form a single jet having a flat curtain-like shape so that it could be used to confine a seat of fire.

Regarding Claims 3 and 6, Relyea fails to disclose turning of the piercing nozzle (196) relative to a piercing tool (194). As it is shown in Figure 15 and mentioned in column 10, lines 38 – 40, the piercing nozzle (196) is fastened to the piercing tool (194) by means of threads (195). Thereby, it is not possible to turn the piercing nozzle so as to turn the sprayed jet.

Regarding Claim 4, Relyea fails to disclose turning of the piercing tool (194) around its longitudinal axis. As it is shown in Figures 16 – 18, the piercing tool can only be tilted by means of a gear wheel (208). Nowhere is it shown that it could be turned around its longitudinal axis.

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Applicant contends that the Relyea fails to teach each and every feature of the claimed invention. Accordingly, the present claims distinguish over the disclosure of Relyea. Reconsideration of this rejection is respectfully requested.

Section 103(a) Rejections

In order to support a conclusion that a claim is directed to obvious subject matter, the cited references must impliedly suggest the invention *described by the claims*, or the Examiner must present a convincing line of reasoning as to why an artisan would have found *the claimed invention* obvious in light of the teachings of the cited references. See Ex Parte Clapp, 227 U.S.P.Q. 972 (PTO Bd. App. 1985). "[T]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Laskowski et. al., 10 U.S.P.Q. 2d 1397, 1398, (Fed. Cir. 1989), citing, In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). In discussing the mandate of 35 U.S.C. §103, the Federal Circuit holds "it is the invention as a whole that must be considered in obviousness determinations.

Unless the reference suggests the particular combination themselves, they cannot show the actual invention was obvious. *In re Mahurkar Patent Litigation*, 831 F.Supp. 1354, 1374, 28 USPQ2d 1801, 1817 (N.D. Ill. 1993).

As discussed above, Relyea relates to fire fighting. Tsuji relates to a fuel injection technique. Because the references are directed to totally unrelated technical fields and because each is directed to solving a problem different from that solved by the present invention, the suggested combination of Relyea and Tsuji would not be considered obvious by those skilled in the art to which the present invention pertains.

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Moreover, with reference to column 11, lines 11 – 20 of Tsuji, an object of the invention is to solve a problem interfering spray jets directed from orifices of a nozzle. Tsuji teaches to inject fuel gas so that the independent jets will not interfere with each other. Column 3, lines 10 and 11, it is mentioned that by using the disclosed nozzle a large number of independent small flames are formed. Thus, if the teachings of Relyea and Tsuji were to be combined, the end result would not lead one of skill in the art to the claimed invention of this application.

Since the combination of Relyea and Tsuji would not be logical, nor would it lead to the present invention of the independent claims, or render such invention obvious, all rejections of these claims should be withdrawn. Likewise, reconsideration of the dependent claims, which merely add further limitations to the base claims, is respectfully requested.

As to Nicholson, this reference is directed to a sanitary fan spray nozzle used in food industry. Such a spray nozzle has no application or relevance to the invention of the present application.

Geddes teaches the formation of a discharge port (42) into three different directions. Accordingly, this teaching is diametrically opposed to the direction of the present invention.

Applicant contends that each of the cited references, considered alone or in any combination, fail to render obvious the invention of the present claims. Accordingly, all claims should be in condition for allowance and reconsideration of each is respectfully requested.

As to the new claims, Claims 14 and 15, support for these claims can be found in the present application at paragraph [0033], lines 7 and 8, and paragraph [0035], lines 1 and 2, respectively. No new matter has been added.

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CONCLUSION

Claims 1 – 13 were originally pending in the present application. Claims 14 and 15 have been added by this paper. Claims 1 – 15 are now pending and at issue. Applicant contends that all claims are in condition for allowance. Reconsideration of the rejections set forth in the Office Action of April 24, 2008, is respectfully requested.

Should any formalities remain which can be corrected by Examiner's amendment, Applicant requests that the undersigned be contacted by phone in order to expedite the prosecution of the present case.

Respectfully submitted,

By 

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